

2006691-0002.txt

SEQUENCE LISTING

<110> BRISSON, et al.

<120> PLANT TRANSCRIPTIONAL ACTIVATOR AND USES  
THEREOF

<130> 2006691-0002

<150> 10/561,053

<151> 2006-06-22

<160> 4

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> potato Stwhy1 protein sequence

<400> 1

Met Ser Asn Phe Ser Leu Ser Pro Ser Pro Thr Ser Gly Phe Ser Leu  
1 5 10 15  
Asn Leu Gln Asn Pro Thr Lys Thr Ser Tyr Leu Ser Phe Ser Ser Ser  
20 25 30  
Ile Asn Thr Ile Phe Ala Pro Leu Ser Ser Asn Thr Thr Lys Ser Phe  
35 40 45  
Ser Gly Leu Thr His Lys Ala Ala Leu Pro Arg Asn Leu Ser Leu Thr  
50 55 60  
Cys Arg His Ser Asp Tyr Phe Glu Pro Gln Gln Gln Gln Gln Gln  
65 70 75 80  
Gln Gln Gln Pro Gln Gly Ala Ser Thr Pro Lys Val Phe Val Gly Tyr  
85 90 95  
Ser Ile Tyr Lys Gly Lys Ala Ala Leu Thr Val Glu Pro Arg Ser Pro  
100 105 110  
Glu Phe Ser Pro Leu Asp Ser Gly Ala Phe Lys Leu Ser Arg Glu Gly  
115 120 125  
Met Val Met Leu Gln Phe Ala Pro Ala Ala Gly Val Arg Gln Tyr Asp  
130 135 140  
Trp Ser Arg Lys Gln Val Phe Ser Leu Ser Val Thr Glu Ile Gly Ser  
145 150 155 160  
Ile Ile Ser Leu Gly Ala Lys Asp Ser Cys Glu Phe Phe His Asp Pro  
165 170 175  
Asn Lys Gly Arg Ser Asp Glu Gly Arg Val Arg Lys Val Leu Lys Val  
180 185 190  
Glu Pro Leu Pro Asp Gly Ser Gly His Phe Phe Asn Leu Ser Val Gln  
195 200 205  
Asn Lys Leu Ile Asn Leu Asp Glu Asn Ile Tyr Ile Pro Val Thr Lys  
210 215 220  
Ala Glu Phe Ala Val Leu Val Ser Ala Phe Asn Phe Val Met Pro Tyr  
225 230 235 240  
Leu Leu Gly Trp His Thr Ala Val Asn Ser Phe Lys Pro Glu Asp Ala  
245 250 255  
Ser Arg Ser Asn Asn Ala Asn Pro Arg Ser Gly Ala Glu Leu Glu Trp  
260 265 270  
Asn Arg

&lt;210&gt; 2

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Arabidopsis Whirly proteins AtWhy1

&lt;400&gt; 2

Met	Ser	Gln	Leu	Leu	Ser	Thr	Pro	Leu	Met	Ala	Val	Asn	Ser	Asn	Pro
1									10					15	
Arg	Phe	Leu	Ser	Ser	Ser	Ser	Val	Leu	Val	Thr	Gly	Gly	Phe	Ala	Val
								20		25			30		
Lys	Arg	His	Gly	Phe	Ala	Leu	Lys	Pro	Thr	Thr	Lys	Thr	Val	Lys	Leu
							35		40		45				
Phe	Ser	Val	Lys	Ser	Arg	Gln	Thr	Asp	Tyr	Phe	Glu	Lys	Gln	Arg	Phe
						50		55		60					
Gly	Asp	Ser	Ser	Ser	Pro	Ser	Pro	Ala	Glu	Gly	Leu	Pro	Ala	Arg	
						65		70		75		80			
Phe	Tyr	Val	Gly	His	Ser	Ile	Tyr	Lys	Gly	Lys	Ala	Ala	Leu	Thr	Val
						85		90		95					
Asp	Pro	Arg	Ala	Pro	Glu	Phe	Val	Ala	Leu	Asp	Ser	Gly	Ala	Phe	Lys
						100		105		110					
Leu	Ser	Lys	Asp	Gly	Phe	Leu	Leu	Gln	Phe	Ala	Pro	Ser	Ala	Gly	
						115		120		125					
Val	Arg	Gln	Tyr	Asp	Trp	Ser	Lys	Gln	Val	Phe	Ser	Leu	Ser	Val	
						130		135		140					
Thr	Glu	Ile	Gly	Thr	Leu	Val	Ser	Leu	Gly	Pro	Arg	Glu	Ser	Cys	Glu
						145		150		155		160			
Phe	Phe	His	Asp	Pro	Phe	Lys	Gly	Lys	Ser	Asp	Glu	Gly	Lys	Val	Arg
						165		170		175					
Lys	Val	Leu	Lys	Val	Glu	Pro	Leu	Pro	Asp	Gly	Ser	Gly	His	Phe	Phe
						180		185		190					
Asn	Leu	Ser	Val	Gln	Asn	Lys	Leu	Val	Asn	Val	Asp	Glu	Ser	Ile	Tyr
						195		200		205					
Ile	Pro	Ile	Thr	Arg	Ala	Glu	Phe	Ala	Val	Leu	Ile	Ser	Ala	Phe	Asn
						210		215		220					
Phe	Val	Leu	Pro	Tyr	Leu	Ile	Gly	Trp	His	Ala	Phe	Ala	Asn	Ser	Ile
						225		230		235		240			
Lys	Pro	Glu	Glu	Thr	Ser	Arg	Val	Asn	Asn	Ala	Ser	Pro	Asn	Tyr	Gly
						245		250		255					
Gly	Asp	Tyr	Glu	Trp	Asn	Arg									
					260										

&lt;210&gt; 3

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Arabidopsis Whirly proteins AtWhy2

&lt;400&gt; 3

Met	Lys	Gln	Ala	Arg	Ser	Leu	Leu	Ser	Arg	Ser	Leu	Cys	Asp	Gln	Ser
1						5			10				15		
Lys	Ser	Leu	Phe	Glu	Ala	Ser	Thr	Leu	Arg	Gly	Phe	Ala	Ser	Trp	Ser
						20			25			30			
Asn	Ser	Ser	Thr	Pro	Gly	Arg	Gly	Phe	Pro	Gly	Lys	Asp	Ala	Ala	Lys
						35			40			45			
Pro	Ser	Gly	Arg	Leu	Phe	Ala	Pro	Tyr	Ser	Ile	Phe	Lys	Gly	Lys	Ala
						50			55			60			
Ala	Leu	Ser	Val	Glu	Pro	Val	Leu	Pro	Ser	Phe	Thr	Glu	Ile	Asp	Ser
						65			70			75			80

2006691-0002.txt

Gly Asn Leu Arg Ile Asp Arg Arg Gly Ser Leu Met Met Thr Phe Met  
85 90 95  
Pro Ala Ile Gly Glu Arg Lys Tyr Asp Trp Glu Lys Lys Gln Lys Phe  
100 105 110  
Ala Leu Ser Pro Thr Glu Val Gly Ser Leu Ile Ser Met Gly Ser Lys  
115 120 125  
Asp Ser Ser Glu Phe Phe His Asp Pro Ser Met Lys Ser Ser Asn Ala  
130 135 140  
Gly Gln Val Arg Lys Ser Leu Ser Val Lys Pro His Ala Asp Gly Ser  
145 150 155 160  
Gly Tyr Phe Ile Ser Leu Ser Val Asn Asn Ser Ile Leu Lys Thr Asn  
165 170 175  
Asp Tyr Phe Val Val Pro Val Thr Lys Ala Glu Phe Ala Val Met Lys  
180 185 190  
Thr Ala Phe Ser Phe Ala Leu Pro His Ile Met Gly Trp Asn Arg Leu  
195 200 205  
Thr Gly His Val Asn Thr Glu Ala Leu Pro Ser Arg Asn Val Ser His  
210 215 220  
Leu Lys Thr Glu Pro Gln Leu Glu Leu Glu Trp Asp Lys  
225 230 235

<210> 4  
<211> 267  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Arabidopsis Whirly proteins AtWhy3

<400> 4  
Met Ser Gln Leu Leu Ser Ser Pro Pro Met Ala Val Phe Ser Lys Thr  
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Phe Ile Asn His Lys Phe Ser Asp Ala Arg Phe Leu Ser Ser His Ser  
20 25 30  
Ile Leu Thr Ser Gly Gly Phe Ala Gly Lys Ile Ile Pro Leu Lys Pro  
35 40 45  
Thr Ala Arg Leu Lys Leu Thr Val Lys Ser Arg Gln Ser Asp Tyr Phe  
50 55 60  
Glu Lys Gln Arg Phe Gly Asp Ser Ser Ser Gln Asn Ala Glu Val  
65 70 75 80  
Ser Ser Pro Arg Phe Tyr Val Gly His Ser Ile Tyr Lys Gly Lys Ala  
85 90 95  
Ala Leu Thr Ile Glu Pro Arg Ala Pro Glu Phe Val Ala Leu Glu Ser  
100 105 110  
Gly Ala Phe Lys Leu Thr Lys Glu Gly Phe Leu Leu Leu Gln Phe Ala  
115 120 125  
Pro Ala Ala Gly Val Arg Gln Tyr Asp Trp Ser Arg Lys Gln Val Phe  
130 135 140  
Ser Leu Ser Val Thr Glu Ile Gly Asn Leu Val Ser Leu Gly Pro Arg  
145 150 155 160  
Glu Ser Cys Glu Phe Phe His Asp Pro Phe Lys Gly Lys Gly Asp Glu  
165 170 175  
Gly Lys Val Arg Lys Val Leu Lys Val Glu Pro Leu Pro Asp Gly Ser  
180 185 190  
Gly Arg Phe Phe Asn Leu Ser Val Gln Asn Lys Leu Leu Asn Val Asp  
195 200 205  
Glu Ser Val Tyr Ile Pro Ile Thr Lys Ala Glu Phe Ala Val Leu Ile  
210 215 220  
Ser Ala Phe Asn Phe Val Leu Pro His Leu Ile Gly Trp Ser Ala Phe  
225 230 235 240  
Ala Asn Ser Ile Lys Pro Glu Asp Ser Asn Arg Leu Asn Asn Ala Ser  
245 250 255  
Pro Lys Tyr Gly Gly Asp Tyr Glu Trp Ser Arg

260

2006691-0002.txt  
265